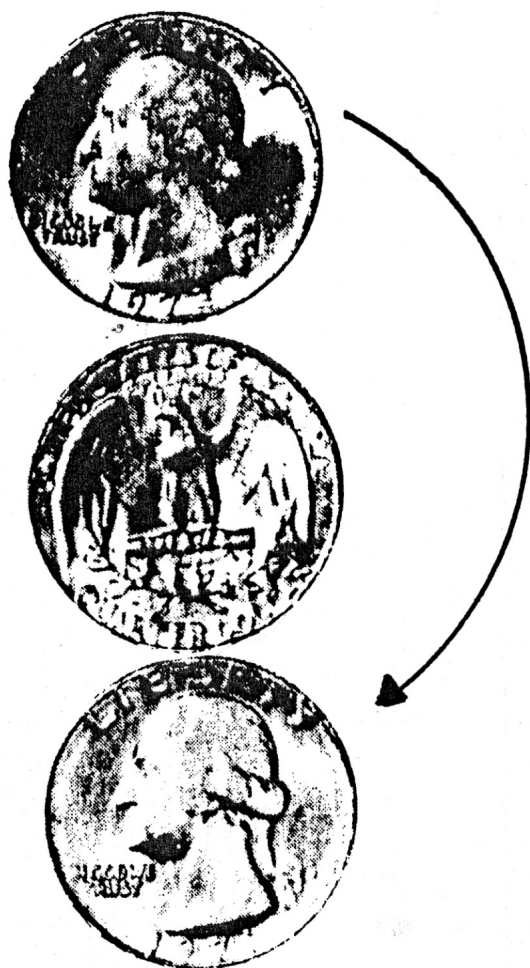
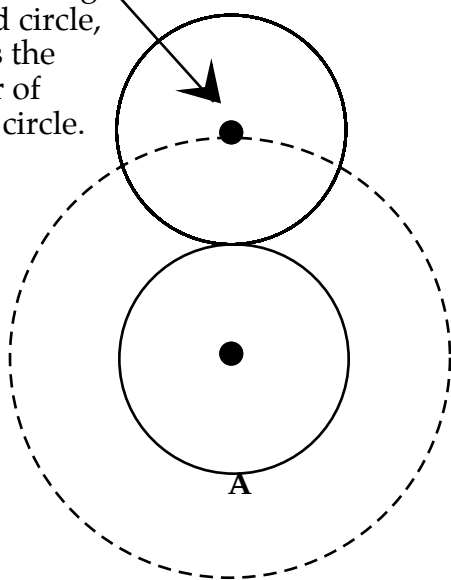


What's with the rotating quarter?



This point is
belongs to
both the large
dotted circle,
and is the
center of
small circle.



Suppose the diameter of the quarters is d .

Then, each quarter's circumference is $d\pi$.

But look at the center of the top quarter that is being rotated, It is producing a circle whose diameter is $2d$, so this large circle's circumference is $2d\pi$. When the rotating quarter reaches point A it has gone a distance of $d\pi$, a complete revolution.